

APPENDIX SS7

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APPENDIX SS7
APPENDIX FOR THE PROVISION OF SS7 SERVICE

1. INTRODUCTION

- 1.1 This Appendix sets forth the terms and conditions for non-discriminatory access to the Common Channel Signaling/Signaling System 7 (CCS/SS7) signaling network provided by the applicable SBC Communications Inc. (SBC) owned Incumbent Local Exchange Carrier (ILEC) and CLEC. CCS/SS7 is comprised of certain network elements, including Dedicated Signaling Links, Signaling Link Transport and Signaling Transfer Points (STP). In addition to such network elements, this Appendix provides for CCS/SS7 functionality and translations to support SS7 based services and applications.
- 1.2 SBC Communications Inc. (SBC) means the holding company which owns the following ILECs: Illinois Bell Telephone Company, Indiana Bell Telephone Company Incorporated, Michigan Bell Telephone Company, Nevada Bell Telephone Company, The Ohio Bell Telephone Company, Pacific Bell Telephone Company, The Southern New England Telephone Company, Southwestern Bell Telephone Company and/or Wisconsin Bell, Inc. d/b/a Ameritech Wisconsin.
- 1.3 As used herein, AMERITECH-WISCONSIN means the applicable above listed ILECs doing business in Wisconsin.

2. SERVICE DESCRIPTION

- 2.1 CLEC may utilize other SS7 service providers upon prior notice to AMERITECH-WISCONSIN. AMERITECH-WISCONSIN will cooperate with CLEC to transition the service to another provider on an agreed upon schedule. After such transition this appendix shall not apply to such services.
- 2.2 SS7 Transport
- 2.2.1 SS7 as defined in this Appendix above, provides for the transporting of call setup (i.e. ISUP) signaling to each end-office subtended from the tandem in the LATA in which the interconnection occurs as outlined in this Agreement. SS7 Transport of SS7 Global Access or SS7 Access as defined in the AMERITECH-WISCONSIN below outlines the requirements by for interLATA signaling.

- 2.2.2 SS7 Transport provides for the routing and screening of SS7 messages from an AMERITECH-WISCONSIN pair of STPs (i.e., a mated pair) to another AMERITECH-WISCONSIN pair of STPs. The screening of messages provides for CLEC designation of signaling points associated with the CLEC and controls which messages may be allowed by the AMERITECH-WISCONSIN STP pairs. The routing of messages provides for the transfer of a complete message between signaling links, and for a Global Title Translation (GTT) of the message address, if needed.
- 2.2.3 SS7 Transport provides routing of messages for all parts of the SS7 protocol. These messages may support other applications and services such as, for example, CLASS services, Message Waiting services, Toll Free Database services, Line Information Data Base (LIDB) Services, Calling Name (CNAM) Database services, Advanced Intelligent Network (AIN) services and Telecommunications Industry Association Interim Standard-41 (IS-41) services. SS7 Transport will route messages to the global title address or to the signaling point code address of the message based on the translation information of AMERITECH-WISCONSIN's STP.

2.3 Dedicated Signaling Links

- 2.3.1 Dedicated Signaling Links provide interconnection to AMERITECH-WISCONSIN's signaling network. Each signaling link is a set of dedicated 56Kbps (or higher speed) transmission paths between CLEC STPs or switches and the AMERITECH-WISCONSIN STP mated pair. The CLEC designated Signaling Points of Interconnection (SPOI) are collocated in a AMERITECH-WISCONSIN wire center. The links are fully dedicated to the use of CLEC and provide the screening and routing usage for the AMERITECH-WISCONSIN STP to which the link is connected. Dedicated Signaling Links are available to CLECs for their use in furnishing SS7-based services or applications to their end users or other users of SS7 signaling information.

2.4 Dedicated Signaling Links include the following elements:

2.4.1 SS7 Link Cross Connect

- 2.4.1.1 The SS7 Link Cross Connect provides a DS-0 or DS1 connection in the AMERITECH-WISCONSIN STP building and connects the STP Port Termination to the CLEC SPOI.

2.4.2 STP Port Termination

- 2.4.2.1 The STP Port Termination is the physical termination of the signaling link (i.e. 56 kbps circuit) at a AMERITECH-WISCONSIN STP. A STP Port Termination is used for each 56 kbps SS7 Link Cross Connect terminated at a AMERITECH-WISCONSIN STP.

2.4.3 STP Access Link

- 2.4.3.1 The STP Access Link provides a 56-kilobit per second digital facility when CLEC requires an interoffice facility to connect from the CLEC SPOI to the STP building location.

- 2.5 The CLEC shall provide the portion of the signaling link from the CLEC premises within the LATA to the AMERITECH-WISCONSIN STP location or the CLEC SPOI. The signaling link may be provided using existing arrangements for providing SS7 between the parties. CLEC shall identify the DS1 or channel of a DS1 that will be used for the signaling link.
- 2.6 CLEC shall identify to AMERITECH-WISCONSIN the facility and channel to which the SS7 Link Cross Connect shall connect. If the facility does not terminate in the STP location AMERITECH-WISCONSIN shall provide a transport facility referred to as the STP Access Link. The STP Access Link will connect to the DS-0 cross connect at the STP location.
- 2.7 When CLEC uses an alternative DS1 facility or arranges, or agrees to allow, a physical degree of diversity or performance that is not in accordance with the specifications of Telcordia technical publication, GR-905-CORE, CLEC acknowledges that the performance and reliability of the SS7 protocol may be affected and the performance and reliability standards described in GR-905-CORE may be disqualified.
- 2.8 Dedicated Signaling Links are subject to AMERITECH-WISCONSIN compatibility testing and certification requirements pursuant to the Network Operations Forum Reference Document, GR-905-CORE and AMERITECH-WISCONSIN Technical Publication, TP76638. Technical Publication AM-TR-OAT-000069 will apply in addition to the documents referenced above. Each individual set of links from CLEC switch to AMERITECH-WISCONSIN STP will require a pre ordering meeting to exchange information and schedule testing for certification by AMERITECH-WISCONSIN.

2.9 Dedicated Signaling Links Technical Requirements

2.9.1 Unbundled Dedicated Signaling Links will perform in the following two ways:

2.9.1.1 as an “A-link”, which is a connection between a switch and a home signaling transfer point (STP) mated pair; and

2.9.1.2 as a “B-link” or “D-link,” which is an interconnection between STPs in different signaling networks.

2.9.2 When CLEC provides its own switch or STP, CLEC will provide DS1 (1.544 Mbps) interfaces at the CLEC-designated SPOIs. DS1 transport to the SPOI can be provided for, as previously indicated, via existing transport facilities or through CLEC purchase of an AMERITECH-WISCONSIN dedicated transport facility, previously referred to as the “Access Connection”. Each 56 Kbps transmission path will appear as a DS0 channel on the DS1 interface.

2.9.3 In each LATA in which CLEC desires Dedicated Signaling Links for interconnection to the AMERITECH-WISCONSIN SS7 Signaling Network, CLEC must purchase dedicated signaling links to each STP of a mated pair of STPs.

2.9.4 CLEC assumes the responsibility to ensure diverse routing of CLEC signaling links from CLEC switch to CLEC SPOI. AMERITECH-WISCONSIN will provide the same amount of diversity as it provides to itself in terms of diverse routing of interoffice facilities, should such facilities be necessary.

2.9.5 When CLEC requests that AMERITECH-WISCONSIN add a Signaling Point Code (SPC), CLEC will identify to AMERITECH-WISCONSIN the SPCs associated with the CLEC set of links and will pay a non-recurring charge per STP pair at the rates set forth in Appendix PRICING UNE – Schedule of Prices, “Point Code Addition”.

2.9.6 CLEC will notify AMERITECH-WISCONSIN in writing thirty (30) days in advance of any material change in CLEC’s use of such SS7 signaling network, including but not limited to any change in CLEC SS7 Dedicated Signaling Links, SS7 Transport and/or STP.

2.10 Signaling Transfer Points (STPs)

2.10.1 The STP element is a signaling network function that includes all of the capabilities provided by the STP switches which enable the exchange of SS7

messages between switching elements, database elements and signaling transfer point switches via associated signaling links. STP includes the associated link interfaces.

2.10.2 Intentionally Omitted.

2.10.3 SS7 Transport will apply to SS7 messages transported on behalf of CLEC from a AMERITECH-WISCONSIN designated STP pair to a to a AMERITECH-WISCONSIN STP pair located in a different LATA. In the AMERITECH-WISCONSIN the Signal Switching and Signal Transport rates will apply to ISUP and TCAP messages.

2.10.4 In such instance as CLEC utilizes AMERITECH-WISCONSIN's Local Switching Network Element, CLEC does not separately order SS7 signaling under this method. CLEC will be charged for the use of the AMERITECH-WISCONSIN SS7 signaling on a per call basis

2.11 STP Technical Requirements

2.11.1 STPs will provide signaling connectivity to the following network elements connected to the AMERITECH-WISCONSIN SS7 network: AMERITECH-WISCONSIN Local Switching or Tandem Switching; AMERITECH-WISCONSIN Service Control Points/Call Related Databases; Third-Party local or tandem switching systems; and Third-party-provided STPs.

2.11.2 The Parties will indicate to each other the signaling point codes and other screening parameters associated with each Link Set ordered by CLEC at the AMERITECH-WISCONSIN STPs, and where technically feasible, each Party will provision such link set in accordance with these parameters. CLEC may specify screening parameters so as to allow transient messages to cross the AMERITECH-WISCONSIN SS7 Network. The Parties will identify to each other the GTT type information for message routing. CLEC will pay a non-recurring charge when CLEC requests AMERITECH-WISCONSIN add GTT type information for message routing, in connection with its use of unbundled signaling.

2.12 Interface Requirements

2.12.1 AMERITECH-WISCONSIN will provide STP interfaces to terminate A-links, B-links, and D-links.

2.12.2 CLEC will designate the SPOI for each link. CLEC will provide a DS1 or higher rate transport interface at each SPOI. AMERITECH-WISCONSIN

will provide intraoffice diversity to the same extent it provides itself such diversity between the SPOIs and the AMERITECH-WISCONSIN STPs.

3. MANNER OF PROVISIONING

3.1 The following describes the manner of provisioning for SS7 services. Each Party will work cooperatively with the other Party and will each provide knowledgeable personnel in order to provision, test and install SS7 Service in a timely fashion.

3.2 SS7 Transport

3.2.1 CLEC shall use SS7 Transport subject to the screening and routing information of the AMERITECH-WISCONSIN STPs. AMERITECH-WISCONSIN shall provide information to CLEC on the routes and signaling point codes served by the AMERITECH-WISCONSIN STPs. SS7 Transport shall route ISUP messages for the purpose of establishing trunk voice paths between switching machines.

3.2.2 SS7 Transport shall route TCAP queries pursuant to the SS7 Protocol to the AMERITECH-WISCONSIN "regional" STP pair that directly serves the database of TCAP message. SS7 Transport shall route TCAP responses from a AMERITECH-WISCONSIN "regional" STP pair to another AMERITECH-WISCONSIN STP pair.

3.2.3 SS7 Transport provides a signaling route for messages only to signaling points to which AMERITECH-WISCONSIN has a route. SS7 Transport does not include the provision of a signaling route to every possible signaling point. When AMERITECH-WISCONSIN does establish a route to a signaling point in a mated pair of STPs, the route may not be available to other AMERITECH-WISCONSIN pairs of STPs, until ordered. When AMERITECH-WISCONSIN or CLEC, pursuant to a service order, arranges to establish a route to a signaling point, such route to the other signaling point or other signaling network will be used by all signaling points within, and connected to, the AMERITECH-WISCONSIN signaling network pursuant to the standard requirements of the SS7 protocol.

3.3 Disputes concerning the association of a signaling point among specific link sets associated with a AMERITECH-WISCONSIN mated STP will be resolved by consultation with the signaling point owner, as defined in the Local Exchange Routing Guide (LERG), Section 1, assignment of SPC.

3.4 Dedicated Signaling Links

3.4.1 CLEC shall designate the signaling points and signaling point codes associated with CLEC. CLEC shall provide such information to AMERITECH-WISCONSIN to allow AMERITECH-WISCONSIN to

translate AMERITECH-WISCONSIN STPs. The information shall define the screening and routing information for the signaling point codes of CLEC and may include global title address, translation type and subsystem designations as needed.

- 3.4.2 Signaling links from AMERITECH-WISCONSIN mated pairs of STPs shall connect to CLEC premises (including collocation locations) within the same LATA. A set of links can be either:

3.4.2.1 "A" Link Sets from CLEC's Signaling Point (SP)/Service Switching Point (SSP). A minimum of two links will be required, one from the SP/SSP to each STP; or,

3.4.2.2 "B" Link Sets from CLEC's STPs that are connected to AMERITECH-WISCONSIN's mated pair of STPs. A minimum of four links will be required (i.e. a "quad") between the two pairs of STPs. (This same arrangement is sometimes referred to as a set of "D" links.)

- 3.4.3 A STP Port Termination and SS7 Link Cross Connect is required for each 56-kbps access link utilized for the Service. STP locations are set forth in the National Exchange Carrier Association, Inc. (NECA) Tariff FCC No. 4.

- 3.4.4 A pre-order meeting will define the AMERITECH-WISCONSIN facility availability and the degree of diversity in both the AMERITECH-WISCONSIN physical network and the CLEC physical network from signaling point to signaling point for the link.

- 3.4.5 When CLEC requires a STP Access Link, CLEC and AMERITECH-WISCONSIN shall jointly negotiate the degree of diversity provided among and between multiple dedicated signaling links. The negotiation shall consider the requirements of the SS7 standard protocol, the degree of diversity available in each network and the possible alternatives.

- 3.4.6 All applicable signaling point codes for each signaling link must be installed at each of AMERITECH-WISCONSIN's interconnecting STPs.

- 3.4.7 Call set-up times may be adversely affected when CLEC, using SS7 signaling, employs Intermediate Access Tandems (IATs) in its network. AMERITECH-WISCONSIN makes no warranties with respect to call set-up times when multiple STP pairs are involved or when the signaling traffic is exchanged between two non-AMERITECH-WISCONSIN signaling points.

3.4.8 Provisioning of the SS7 Service is in accordance with AMERITECH-WISCONSIN AM-TR-OAT-000069 and GR-905-CORE, as amended.

3.5 Use of the STP

3.5.1 When CLEC orders AMERITECH-WISCONSIN unbundled Local Switching, the use of the STP shall apply. No order or provisioning by CLEC is needed. The AMERITECH-WISCONSIN Local Switch will use the AMERITECH-WISCONSIN SS7 signaling network.

4. **RESPONSIBILITIES OF AMERITECH-WISCONSIN**

4.1 AMERITECH-WISCONSIN shall manage the network and, at its sole discretion, apply protective controls. Protective controls include actions taken to control or minimize the effect of network failures or occurrences, which include, but are not limited to, failure or overload of AMERITECH-WISCONSIN or CLEC facilities, natural disasters, mass calling or national security demands. Protective controls will be applied in a non-discriminatory manner so as not to favor AMERITECH-WISCONSIN or its affiliates over CLEC, nor to favor any telecommunications provider using the network over any other.

4.2 AMERITECH-WISCONSIN shall determine the GTT route for messages routed to GTT, which are associated with AMERITECH-WISCONSIN signaling points.

4.3 AMERITECH-WISCONSIN shall define regional functions and local functions of its STPs. AMERITECH-WISCONSIN will route ISUP messages within the AMERITECH-WISCONSIN signaling network. Capacity limitations shall define a temporary technical infeasibility until the capacity limit can be resolved. In determining technical infeasibility including but not limited to capacity limitations, AMERITECH-WISCONSIN will act in a non-discriminatory manner so as not to favor AMERITECH-WISCONSIN or its affiliates over CLEC, nor to favor any telecommunications provider using the network over any other.

4.4 AMERITECH-WISCONSIN shall route messages generated by the action of CLEC throughout the AMERITECH-WISCONSIN signaling network as specified within this Appendix. The content of the messages is for the use of signaling points of origination and destination. AMERITECH-WISCONSIN will not use any information within messages for any purpose not required by or related to the use of the AMERITECH-WISCONSIN signaling network. AMERITECH-WISCONSIN will not divulge any message or any part of messages generated by CLEC to any other party, except as required to manage the AMERITECH-WISCONSIN signaling network or as may be required by law.

4.5 AMERITECH-WISCONSIN shall transfer Calling Party Number Parameter information unchanged, including the "privacy indicator" information, when ISUP

Initial Address Messages are interchanged with the CLEC signaling network.

5. RESPONSIBILITIES OF CLEC

- 5.1 CLEC shall provision the signaling links at CLEC's premises and from CLEC's premises to AMERITECH-WISCONSIN's STP location in a diverse, reliable and technically feasible manner. CLEC shall identify to AMERITECH-WISCONSIN the SPC(s) associated with the CLEC set of links.
- 5.2 CLEC shall identify to AMERITECH-WISCONSIN the GTT information for messages that route to CLEC.
- 5.3 When routing messages addressed to an AMERITECH-WISCONSIN Subsystem Number (SSN), CLEC shall use the AMERITECH-WISCONSIN defined SSN designation of the AMERITECH-WISCONSIN mated STP pair to which the message is routed.
- 5.4 CLEC shall transfer Calling Party Number Parameter information unchanged, including the "privacy indicator" information, when ISUP Initial Address Messages are interchanged with the AMERITECH-WISCONSIN signaling network.
- 5.5 CLEC shall furnish to AMERITECH-WISCONSIN, at the time the SS7 Service is ordered and annually thereafter, an updated three (3) year forecast of usage of the SS7 Signaling network. The forecast shall include total annual volume and busy hour busy month volume. AMERITECH-WISCONSIN shall utilize the forecast in its own efforts to project further facility requirements.
- 5.6 CLEC shall inform AMERITECH-WISCONSIN in writing thirty (30) days in advance of any change in CLEC's use of such SS7 Service which alters by ten percent (10%) for any thirty (30) day period the volume of signaling transactions by individual SS7 service that are planned by CLEC to be forwarded to AMERITECH-WISCONSIN's network. CLEC shall provide in said notice the reason, by individual SS7 service, for the volume change.

6. BONAFIDE REQUEST PROCESS

- 6.1 Any request for SS7 service not addressed within this Appendix may be submitted to AMERITECH-WISCONSIN via the Bonafide Request ("BFR") process set forth in Appendix UNE.

7. DESCRIPTION OF RATE ELEMENTS AMERITECH-WISCONSIN

- 7.1 There are three types of charges that apply for SS7 Access. They are recurring, usage and nonrecurring charges. Recurring and nonrecurring charges apply for each port that is established on a STP. Usage charges apply for each Initial Address

Message (IAM) or TCAP (excluding LIDB Access Service, 800 Access Service TCAP messages and LNP Database Access Query TCAP messages) message that is switched by the local STP and transported to an AMERITECH-WISCONSIN end office or for each IAM and TCAP message that is switched by the local STP in a hubbing arrangement.

- 7.2 Nonrecurring charges apply for the establishment of Originating Point Codes (OPC) and Global Title Address (GTA) Translations. An OPC charge applies for each OPC established, as well as each OPC added or changed subsequent to the establishment of STP Access. The OPC charge applies on a per service basis. A GTA Translation charge applies for each service or application (excluding LIDB Access Service and 800 Carrier-ID-Only Service) that utilizes TCAP messages. A GTA Translation charge also applies for each service (excluding LIDB Access Service and 800 Carrier-ID-Only Service) added or changed subsequent to the initial establishment of STP Access.

7.3 Signal Formulation

- 7.3.1 An IAM Formulation usage charge will be assessed for each IAM message formulated at the AMERITECH-WISCONSIN tandem for CLEC to AMERITECH-WISCONSIN terminated calls.

7.4 Signal Transport

- 7.4.1 An IAM Signal Transport usage charge will also be assessed for each IAM message that is transported from the local STP to the AMERITECH-WISCONSIN end office for terminating traffic. A TCAP Signal Transport usage charge will be assessed for each TCAP message that is transported from the local STP to the AMERITECH-WISCONSIN end office (excluding LIDB and 800 Access Service).

7.5 Signal Switching

- 7.5.1 An IAM Signal Switching usage charge will be assessed for each IAM message that is switched by the local STP for each IAM messages that is switched for direct routed terminating traffic. A TCAP Signal Switching usage charge will be assessed for each TCAP message that is switched by the local STP termination of non-call associated signaling messages (excluding LIDB and 800 Access Service).

7.6 Signal Tandem Switching

- 7.6.1 An IAM Signal Tandem Switching usage charge will be assessed for an IAM message that is switched by an AMERITECH-WISCONSIN STP and transported to an end office for tandem routed terminating traffic. When

Signal Tandem Switching usage charges are assessed, Signal Switching and Signal Transport charges do not apply, except for SS7 Transport.

8. INTENTIONALLY OMITTED

9. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

- 9.1 Every interconnection, service and network element provided hereunder, shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection, service or network element.